

REMARKS

The present Amendment amends claims 5, 11 and 29, leaves claim 9 unchanged and cancels claims 1 and 7. Therefore, the present application has pending claims 5, 9, 11 and 29.

Claims 11 and 29 stand objected to due to informalities noted by the Examiner in paragraph 2 of the Office Action. Amendments were made to claims 11 and 29 to correct the informalities noted by the Examiner. Therefore, this objection is overcome and should be withdrawn.

In paragraph 3 of the Office Action the Examiner acknowledges Applicants claim for priority. However, the Examiner alleges that Applicants have not filed a certified copy of the priority document as required by 35 USC §119. Applicants traverse this allegation by the Examiner. A certified copy of the priority document was in fact filed during the prosecution of parent application Serial No. 08/788,416, filed January 27, 1997, now U.S. Patent No. 6,041,038. Said certified document being filed in the United States Patent and Trademark Office on March 26, 1997. A Letter Claiming Priority is attached herewith. Therefore, Applicants respectfully request the Examiner to acknowledge that a certified copy of the priority document has in fact been received.

Claims 1 and 11 stand rejected under 35 USC §102(e) as being anticipated by Kakuma (U.S. Patent No. 5,555,265); and claims 5, 7, 9 and 29 stand rejected under 35 USC §103(a) as being unpatentable over Kakuma. As indicated above, claims 1 and 7 were canceled. Therefore, these rejections with respect to claims 1 and 7 are rendered moot. These rejections with respect to the remaining claims 5, 9, 11 and 29 are traversed for the following reasons. Applicants submit that the

features of the present invention as now recited claims 5, 9, 11 and 29 are not taught or suggested by Kakuma whether taken individually or in combination with any of the other references of record. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw these rejections.

Amendments were made to claims 5, 9, 11 and 29 so as to more clearly recite that the present invention is directed to a packet transfer control method, a packet switching device and a packet processing device for transferring and processing a packet not taught or suggested by any of the references of record whether taken individually or in combination with each other.

According to the present invention as now recited in the claims a control packet including a traffic class indicative of a packet transfer priority and information indicative of a priority related to packet discarding is sent from a source unit and the information indicative of a priority related to packet discarding is stored. Thereafter, according to the present invention selective discard processing is performed on user packets belonging to the indicated traffic class in conformity with a predetermined discard condition based on a priority indicated by the information indicative of a priority related to packet discarding.

Unique according to the present invention is that the selective discard processing is continued on subsequent packets included in part of the same message as data portions of already discarded packets, even if the subsequent packets deviate from the predetermined discard condition due a change in congestion status. Thus, according to the present invention when a packet deviates from the discard condition due to a change in congestion status, the packets subsequent to the packets already discarded included in a part of the same message

as data portions of the packets already discarded are controlled in a manner so as to be discarded. These features of the present invention are described, for example, on page 7, lines 8-17 of the present application.

Accordingly, in the present invention, a packet is selectively discarded depending on discard priority. In many cases, a message is transmitted by the use of a plurality of packets wherein each packet includes a part of the message. According to the present invention the discard is performed according to units of the message such that if a packet which includes a part of the message is discarded, the subsequent packets including the other parts of the message are also discarded even if the congestion status has changed and the packet deviates from the discard condition. This feature of the present invention allows for possible reduction in confusion and inaccurate messages being that once a portion of a message has been discarded then all of the message is discarded. Accordingly, by use of the present invention, a message divided into packets of a lower connection priority is more likely to be discarded, while a message divided into packets of a higher priority connection are protected. The Examiner's attention is directed to page 22, lines 19-23 of the present application.

The above described features of the present invention now more clearly recited in the claims are not taught or suggested by Kakuma. Kakuma merely teaches a switching path setting system which is disposed between an input line connected to a switching equipment and a switch. Kakuma teaches that an input interface device allocates a cell to a quality class as tag information corresponding to an identifier of the cell and that a quality class buffer stores the cells corresponding to the quality class allotted by the input interface device corresponding to the quality

class. Thus, Kakuma teaches that a cell is read from the quality class buffer at a band allocated to each quality class.

Kakuma teaches, for example, in col. 7, line 66 through col. 8, line 3, a type of discard priority which is setup using a table relative to VPI and VCI. However, at no point is there any teaching or suggestion in Kakuma regarding a discard process which is implemented when the discard priority scheme has been violated according to the present invention. The Examiner's attention is directed to col. 10, lines 50-65 of Kakuma. In this passage, Kakuma teaches that:

"cells are written to and read from these quality buffers for each quality class. If a buffer allocated to a particular quality class gets overflow or if the data amount of cells stored in the buffer exceeds a predetermined threshold value, thereof sales of the quality class are discarded. However, cells of other quality classes are not discarded. When the buffer for the quality class 0 gets overflow some of the cells of the quality class 0 are discarded. However, cells of the quality classes 1, 2 and 3 are not discarded. Thus, the quality of the services of the quality classes 1, 2 and 3 is not deteriorated".

As described above, the present invention as now more clearly recited in the claims provides a packet discard process that operates even if the packets deviate from a predetermined discard condition. According to the present invention, even in such a situation where the packets deviate from the predetermined discard condition, selected packets are still discarded. Particularly, according to the present invention, all of the packets of a message are discarded when one of the packets of the message has been previously discarded according to the discard priority scheme even when deviation occurs. Such features are clearly not taught or suggested by Kakuma.

Therefore, Kakuma fails to teach or suggest that the selective discard processing is continued on subsequent packets included in part of the same message as data portions of already discarded packets, even if the subsequent packets deviate from the discard condition due to a change in congestion status as recited in the claims.

Thus, as is clear from the above, Kakuma fails to teach or suggest the features of the present invention as now more clearly recited in the claims. Therefore, Kakuma whether taken individually or in combination with any of the other references of record does not anticipate nor render obvious the features of the present invention as now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 USC §102(e) rejection of claim 11 as being anticipated by Kakuma and the 35 USC §103(a) rejection of claims 5, 9 and 29 as being unpatentable over Kakuma is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the reference utilized in the rejection of claims 1, 5, 7, 9, 11 and 29.

In view of the foregoing amendments and remarks, Applicants submit that claims 5, 9, 11 and 29 are in condition for allowance. Accordingly, early allowance of claims 5, 9, 11 and 29 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (500.35180CX1).

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP



Carl I. Brundidge
Registration No. 29,621

CIB/jdc
(703) 312-6600